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EXAMINER

HILLERY, NATHAN

ART UNIT	PAPER NUMBER
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2176

DATE MAILED: 01/13/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/587,581

Applicant(s)

BURCHHARDT ET AL.

Examiner

Nathan Hillery

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 April 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-30 is/are rejected.
- 7) ☒ Claim(s) 3,13 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 June 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2. 6) ☐ Other:

DETAILED ACTION

1. This action is responsive to communications: Change of Address filed on 4/18/03.
2. Claims 1 – 30 are pending in the case. Claims 1, 11, and 21 are independent.

Claim Objections

3. Claims 3 and 13 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. The claims further limit the generating step or module of 1 and 11 respectively. It is recommended that the applicant make claim 3 dependent from claim 1 and claim 13 dependent from claim 11.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
5. Claims 4, 10, 14, 20, 24, and 30 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
6. The term "relatively language independent" in claim 4 is a relative term which renders the claim indefinite. The term "relatively language independent" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the

scope of the invention. Therefore, a relatively language independent format is rendered indefinite and will not be considered for this examination.

7. The term "relatively language independent" in claim 14 is a relative term which renders the claim indefinite. The term "relatively language independent" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. Therefore, a relatively language independent format is rendered indefinite and will not be considered for this examination.

8. The term "relatively language independent" in claim 24 is a relative term which renders the claim indefinite. The term "relatively language independent" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. Therefore, a relatively language independent format is rendered indefinite and will not be considered for this examination.

9. Claim 4 recites the limitation "at least one IMS message definition" in lines 1 – 2. Only one IMS message definition is mentioned in the preceding claims; this claim insinuates that there is more than one IMS message definition rendering the claim indefinite. The office will interpret the claim as having only one IMS message definition.

10. Claim 10 recites the limitation "at least one placeholder" in line 1. Only one placeholder is mentioned in the preceding claims; this claim insinuates that there is more than one placeholder, thus, rendering the claim indefinite. The office will interpret the claim as having only one placeholder.

11. Claim 14 recites the limitation "at least one IMS message definition" in lines 1 – 2. Only one IMS message definition is mentioned in the preceding claims; this claim insinuates that there is more than one IMS message definition rendering the claim indefinite. The office will interpret the claim as having only one IMS message definition.

12. Claim 20 recites the limitation "at least one placeholder" in line 1. Only one placeholder is mentioned in the preceding claims; this claim insinuates that there is more than one placeholder, thus, rendering the claim indefinite. The office will interpret the claim as having only one placeholder.

13. Claim 24 recites the limitation "at least one IMS message definition" in lines 1 – 2. Only one IMS message definition is mentioned in the preceding claims; this claim insinuates that there is more than one IMS message definition rendering the claim indefinite. The office will interpret the claim as having only one IMS message definition.

14. Claim 30 recites the limitation "at least one placeholder" in line 1. Only one placeholder is mentioned in the preceding claims; this claim insinuates that there is more than one placeholder, thus, rendering the claim indefinite. The office will interpret the claim as having only one placeholder.

Claim Rejections - 35 USC § 103

15. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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16. Claims 1 – 5, 11 – 15, 21 – 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Blackman et al. (US005737597A) ^{in view of} and W3C (WIDL). JF 11/4/04

17. **Regarding independent claim 1**, Blackman et al. teach that *it is well known in the art to use database management systems, such as IBM's IMSTM (Information Management System) database management system, to manage computerized datastores. Indeed, IMSTM has been used for decades and remains in use today. Currently, there is a need to access such "legacy" datastores using application programs developed by object-oriented programming systems (OOPS) (Column 2, lines 37 – 43) and that in the preferred embodiment, the record layout is captured from a COBOL "copylib" used by the application program 104. On the other hand, the record layout may also be captured from other languages, such as C, C++, Assembler, Pascal or PL/1 (column 8, lines 46 – 50) and W3C teaches that WIDL is an application of the eXtensible Markup Language (XML); it allows interactions with Web servers to be defined as functional interfaces that can be accessed by remote systems over standard Web protocols, and provides the structure necessary for generating client code in languages such as Java, C/C++, COBOL, and Visual Basic (Abstract, page 1). It would have been obvious to one with ordinary skill in the art at the time of the invention to interpret the above disclosures as having the capabilities of **generating an XML document template from an IMS message definition and merging an IMS message with the generated template to produce a corresponding XML document**, since the Hutchinson Dictionary of Computers, Multimedia, and the Internet defines a template as *a file that lays down a document's format. Templates are used in word processing,**

spreadsheet, and other programs to specify all the styles used in a document, such as fonts, margins, macros, formulas and so on. They are widely used to automate the production of documents such as memos, mailings and reports, making sure that they have a uniform appearance and Webopedia.com discloses that a DTD states what tags and attributes are used to describe content in an SGML, XML or HTML document, where each tag is allowed, and which tags can appear within other tags. For example, in a DTD one could say that LIST tags can contain ITEM tags, but ITEM tags cannot contain LIST tags. In some editors, when authors are inputting information, they can place tags only where the DTD allows. This ensures that all the documentation is formatted the same way. Applications will use a document's DTD to properly read and display a document's contents. Changes in the format of the document can be easily made by modifying the DTD. Further, it would have been obvious to one with ordinary skill in the art to know that WIDL can be converted into XML, since WIDL is an application of XML (W3C, Abstract). It would have been obvious to one with ordinary skill in the art at the time of the invention to combine the invention of Blackman et al. with that of W3C because such a combination would allow the users of Blackman et al. the benefit of WIDL definitions [which] provide a mapping between Web resources and applications written in conventional programming languages such as C/C++, COBOL, Visual Basic, Java, JavaScript, etc. (W3C, Page 2, fifth block paragraph).

18. **Regarding dependent claim 2**, Blackman et al. teach that *it is well known in the art to use database management systems, such as IBM's IMSTM (Information Management System) database management system, to manage computerized*

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datastores (Column 2, lines 37 – 40) and that in the preferred embodiment, the record layout is captured from a COBOL "copylib" used by the application program 104

*(column 8, lines 46 – 48), which provide for **obtaining an IMS message definition.***

Blackman et al. do not explicitly teach **obtaining a DTD ... compiling the IMS**

message definition ... or parsing the Adata file. W3c do teach that *WIDL is an*

application of the eXtensible Markup Language (XML); it allows interactions with Web

servers to be defined as functional interfaces that can be accessed by remote systems

over standard Web protocols, and provides the structure necessary for generating client

code in languages such as Java, C/C++, COBOL, and Visual Basic (Abstract, page 1. It

would have been obvious to one with ordinary skill in the art to interpret the combination

*of W3C and Blackman et al to have the capabilities of providing for **obtaining a DTD***

for representing arbitrary IMS message definitions, compiling the IMS message

definition with an option configured to produce an associated data (Adata) file,

and parsing the Adata file using the DTD to generate an XML document template

corresponding to the IMS message definition, since *WIDL definitions provide a*

mapping between Web resources and applications written in conventional programming

languages such as C/C++, COBOL, Visual Basic, Java, JavaScript, etc.(), the skilled

artisan understands that a DTD is involved since Webopedia.com discloses that

Applications will use a document's DTD to properly read and display a document's

contents; also the skilled artisan knows that the COBOL must be compiled before it can

be mapped in WIDL; and WIDL is an application of XML (W3C, Abstract) thus the

skilled artisan also knows that a DTD is needed to render and/or transform it into XML.

Finally, the Hutchinson Dictionary of Computers, Multimedia, and the Internet defines a template as a *file that lays down a document's format* and Webopedia.com discloses that *changes in the format of the document can be easily made by modifying the DTD*. It would have been obvious to one with ordinary skill in the art at the time of the invention to combine the invention of Blackman et al. with that of W3C because such a combination would allow the users of Blackman et al. the benefit of *WIDL definitions [which] provide a mapping between Web resources and applications written in conventional programming languages such as C/C++, COBOL, Visual Basic, Java, JavaScript, etc.* (W3C, Page 2, fifth block paragraph).

19. **Regarding dependent claim 3**, the claim incorporates substantially similar subject matter as claim 2, and is rejected along the same rationale.

20. **Regarding dependent claim 4**, Blackman et al. do not teach **the Adata file....** W3C teaches that *the purpose of the Web Interface Definition Language (WIDL) is to enable automation of all interactions with HTML/XML documents and forms, providing a general method of representing request/response interactions over standard Web protocols, and allowing the Web to be utilized as a universal integration platform* (page 2, third block paragraph), which provide for **the Adata file comprises at least one IMS message definition in a relatively language independent format compared with program source code**. It would have been obvious to one with ordinary skill in the art at the time of the invention to combine the invention of Blackman et al. with that of W3C because such a combination would allow the users of Blackman et al. the benefit of

WIDL definitions [which] provide a mapping between Web resources and applications written in conventional programming languages (W3C, Page 2, fifth block paragraph).

21. **Regarding dependent claims 5 and 23**, Blackman et al. teach that *in the preferred embodiment, the record layout is captured from a COBOL "copylib" used by the application program 104. On the other hand, the record layout may also be captured from other languages, such as C, C++, Assembler, Pascal or PL/1* (column 8, lines 46 – 50), which provide for **extracting the IMS message definition from one of an application source code file and a copy file, and the IMS message definition comprises program source code in a language selected from the group consisting of COBOL, PL/I, Assembler, and Pascal.**

22. **Regarding independent claim 11**, the claim incorporates substantially similar subject matter as claim 1, and is rejected along the same rationale.

23. **Regarding dependent claim 12**, the claim incorporates substantially similar subject matter as claim 2, and is rejected along the same rationale.

24. **Regarding dependent claim 13**, the claim incorporates substantially similar subject matter as claim 3, and is rejected along the same rationale.

25. **Regarding dependent claim 14**, the claim incorporates substantially similar subject matter as claim 4, and is rejected along the same rationale.

26. **Regarding dependent claim 15**, the claim incorporates substantially similar subject matter as claim 5, and is rejected along the same rationale.

27. **Regarding independent claim 21**, the claim incorporates substantially similar subject matter as claim 1, and is rejected along the same rationale.

28. **Regarding dependent claim 22**, the claim incorporates substantially similar subject matter as claim 2, and is rejected along the same rationale.

29. **Regarding dependent claim 24**, the claim incorporates substantially similar subject matter as claim 4, and is rejected along the same rationale.

30. **Regarding dependent claim 25**, the claim incorporates substantially similar subject matter as claim 5, and is rejected along the same rationale.

31. Claims 6, 16, and 26 rejected under 35 U.S.C. 103(a) as being unpatentable over Blackman et al. (US005737597A) ^{in view of} and W3C (WIDL) as applied to claims 1 – 5, 11 – 15, *GF 1/6/04* 21 – 25 above, and further in view of Iyengar et al. (US006038393A) and Brodsky (XML Opens Application Interchange).

32. **Regarding dependent claim 6**, Blackman et al. nor W3C explicitly teach **creating a UML object model for representing arbitrary IMS message definitions and processing the object model using an XML utility to generate the DTD**. Iyengar et al. do teach that *the system also transforms legacy business processes, including legacy applications into UML format* (Abstract, lines 4 – 6). It would have been obvious to one with ordinary skill in the art to interpret the disclosure as providing for **creating a UML object model for representing arbitrary IMS message definitions and processing the object model using an XML utility to generate the DTD**, since Brodsky teaches that *once the type of information needed to be exchanged is expressed in UML, XML will automatically create the DTD and transfer format* (page 7, lines 9 – 10). It would have been obvious to one with ordinary skill in the art at the time

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of the invention to combine the inventions of Blackman et al. with that of Iyengar et al. because such a combination would allow the users of the combined invention of Blackman et al. and W3c the benefit of *a means of transforming a distinctive representation of business model information into a generalized representation* (Column 2, lines 31 – 33).

33. **Regarding dependent claim 16**, the claim incorporates substantially similar subject matter as claim 6, and is rejected along the same rationale.

34. **Regarding dependent claim 26**, the claim incorporates substantially similar subject matter as claim 6, and is rejected along the same rationale.

35. Claims 7 – 10, 17 – 20, and 27 – 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Blackman et al. (US005737597A) ^{in view of} ~~and~~ W3C (WIDL) as applied *§ 116/04* to claims 1 – 5, 11 – 15, 21 – 25 above, and further in view of Friedman (US006182029).

36. **Regarding dependent claims 7 – 10**, Blackman et al. nor W3C explicitly teach **identifying a placeholder ... reading the value ... inserting the value ... the placeholder comprises an XML tag, checking the placeholder ... and reading a portion of the IMS message....** However, it would have been obvious to one with ordinary skill in the art at the time of the invention to interpret most inventions relating to this field of endeavor as being capable of **identifying a placeholder within the XML document template for receiving a corresponding value from the IMS message, reading the value from the IMS message, inserting the value into a location within**

the XML document template indicated by the placeholder, the placeholder comprises an XML tag, checking the placeholder for an associated tag indicating that a corresponding value exists within the IMS message, and reading a portion of the IMS message corresponding to the indicated size, since according to Friedman, *the structure of XML documents is specified using a DTD, which is a set of blueprints related to information about the organization of the document type and consists of specifications concerning the structure of the document. The DTD is used by an XML parser to ensure that a document is valid according to the DTD. The DTD further specifies positions, attributes, cardinality and values of the XML tags* (Column 12, lines 14 – 20).

37. **Regarding dependent claim 17**, the claim incorporates substantially similar subject matter as claim 7, and is rejected along the same rationale.

38. **Regarding dependent claim 18**, the claim incorporates substantially similar subject matter as claim 8, and is rejected along the same rationale.

39. **Regarding dependent claim 19**, the claim incorporates substantially similar subject matter as claim 9, and is rejected along the same rationale.

40. **Regarding dependent claim 20**, the claim incorporates substantially similar subject matter as claim 10, and is rejected along the same rationale.

41. **Regarding dependent claim 27**, the claim incorporates substantially similar subject matter as claim 7, and is rejected along the same rationale.

42. **Regarding dependent claim 28**, the claim incorporates substantially similar subject matter as claim 8, and is rejected along the same rationale.

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43. **Regarding dependent claim 29**, the claim incorporates substantially similar subject matter as claim 9, and is rejected along the same rationale.


44. **Regarding dependent claim 30**, the claim incorporates substantially similar subject matter as claim 10, and is rejected along the same rationale.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nathan Hillery whose telephone number is (703) 305-4502. The examiner can normally be reached on M - F, 8:30 a.m. - 5:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph H. Feild can be reached on (703) 305-9792. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.


JOSEPH H. FEILD
PRIMARY EXAMINER

NH